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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of :

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| Application Number     | 09/843,287 HF    | CFIVIFD          |
| Filing Date            | Apr 24, 2001     |                  |
| First Named Inventor   | Mihcak           | ICT 0 8 2004     |
| Group Art Unit         | <b>1</b> 2621    |                  |
| Examiner Name          | JOHNS, ANDREWAM  | Mony Center 2600 |
| Attorney Docket Number | MS1-794US        | 2000             |

|                      |              |                  |   | U.S. PATENT DOCU                                | JMENTS   | Classification  |
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| Examiner<br>Initials | Cite<br>No.1 | 1 Number         | ument<br>id Code²<br>known)   | Name of Patentee or Applicant of Cited Document | Date of Publication of<br>Cited Document<br>MM-DD-YYYY | Roges, Columns, Lings, Witers Retevant Passages or Relevant -Figures Appear |
| AN                   |              | 5465353 A        |   | Hull et al.                                     | 11/07/1995   | 395/600   |
| AV                   |              | 5613004 <b>A</b> |   | Cooperman et al.                                | 03/18/1997   | 380/28  |
| ANT                  |              | 5664016 A        |   | Preneel et al.                                  | 09/02/1997   | 380/28  |
| AIT                  |              | 5689639 A        |   | Schwarz   | 11/18/1997   | 395/200.01  |
| ANT                  |              | 5809498 A        | 1.  | Lopresti et al.                                 | 09/15/1998   | 707/6   |
| ANT                  |              | 6101602 A        |   | Fridrich  | 08/08/2000   | 713/176   |
| MT                   |              | 6314192 BI       |   | Chen et al.                                     | 11/06/2001   | 382/100   |
| AAT                  |              | 6363463 B1       |   | Mattison  | 03/26/2002   | 711/164   |
| - A                  |              | 5875264 🚜        | $oldsymbol{ol}}}}}}}}}}}}}}}}}$ | Carlstrom                                       | 02/23/1999   | 382/18/   |
| AN AN                |              | 5351310 <b>A</b> |   | Califano et al.                                 | 09/27/1994   | 382/22  |
| M                    |              | 6321232 BI       |   | Syeda-Mahmood                                   | 11/20/2001   | 707/104   |
| AN-                  |              | 5953451 🔏        | ╀   | Syeda-Mahmood                                   | 09/14/1999   | 382/187   |
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|              | EP 1 253 784 AZ                         |   | Microsoft Corporation                              | 10/30/2002   | HO4N 7/00   | П  |
|              | WO 02/37331 A                           |   | Microsoft Corporation                              | 05/10/2002   |   | ⇈  |
|              | WO 99/17537 A                           |   | Hewlett-Packard Company                            | 04/08/1999   |   | Г  |
|              | WO 99/60514 A                           |   | Mass. Inst. of Technology                          | 11/25/1999   | GO6K 9/00   | F  |
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|              |   | Cite No.1 Office3 Number4  EP 1 253 784 A 2  WO 02/37331 A    WO 99/17537 A | Foreign Patent Document                            | Cite No.1 Foreign Patent Document  Name of Patentee or Applicant of Cited Document  EP 1 253 784 A Microsoft Corporation  WO 02/37331 A Microsoft Corporation  WO 99/17537 A Hewlett-Packard Company | Foreign Patent Document   Name of Patentee or Office <sup>3</sup>   Number <sup>4</sup>   Kind Code <sup>3</sup>   Applicant of Cited Document   MM-DD-YYYY | Foreign Patent Document   Name of Patentee or Applicant of Cited Document   Date of Publication of Cited Document   MM-DD-YYYY   Paces of Page 2 of Publication of Cited Document   MM-DD-YYYY   Paces of Page 2 of Publication of Cited Document   MM-DD-YYYY   Paces of Page 2 of Publication of Cited Document   MM-DD-YYYY   Paces of Page 2 of Publication of Cited Document   MM-DD-YYYY   Paces of Publication of Cited Document   Pac |

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<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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| Application Number    | 09/843,287       | RECI               | 計シアト                     |
| Filing Date           | Apr 24, 2001     |                    | HVED                     |
| First Named Inventor  | Mihcak           | በቦፓ ለ              | d 200                    |
| Group Art Unit        | 2621             | <del>- 001-0</del> | 8 2004                   |
| Examiner Name         | JOHNS, ANDRI     | EWAMhnologu        | <u> </u>                 |
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| Examiner<br>Initials* | Cite<br>No.1 | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T² |
| AT                    |              | Chang et al., "RIME: A Replicated Image Detector for the World-Wide Web" Proceedings of the SPIE Vol. 3527 2-4 November 1998 pages 58-67.   |    |
| ANT                   |              | Chen et al., "Achievable Performance of Digital Watermarking Systems" IEEE 1999 pages 13-18.  |    |
| AN                    |              | Chen et al., "Quantization Index Modulation Methods for Digital Watermarking and Information Embedding of Multimedia" Journal of VLSI Signal Processing 27 2001 pages 7-33.   |    |
| AN                    |              | Kesal et al., "Iteratively Decodable Codes for Watermarking Applications" Proceedings of the Second Symposium on Turbo Codes and Their Applications France September. 2000 4 pages.   |    |
| AU                    |              | Mihçak et al., "Blind Image Watermarking Via Derivation and Quantization of Robust Semi-Global Statistics" Proceedings of IEEE-ICASSP Orlando FL 2002 4 pages.  |    |
| AF                    |              | Mihçak et al., "Cryptanalysis of Discrete-Sequence Spread Spectrum Watermarks" Proceedings of the Information Hiding Workshop Holland 2002 21 pages.  |    |
| AN                    |              | Mihçak et al.,"New Iterative Geometric Methods for Robust Perceptual Image Hashing" Proceedings of the Security and Privacy Digital Rights Management Workshop 2001 9 pages.  |    |
| AV                    |              | Mihçak et al.,"Watermarking via Optimization Algorithms for Quantizing Randomized Statistics of Image Regions" Proceedings of the Annual Allerton Conference on Communication Control and Computing Urbana IL 2002 10 pages.                                    |    |
| ANT                   |              | Moulin et al., "The Parallel-Gaussian Watermarking Game" IEEE Transactions Information Theory Feb. 2004 pages 1-36.   |    |
| HAV                   |              | Venkatesan et al., "Image Watermarking with Better Resilience" Proceedings of IEEE-ICIP Vancouver BC Canada 2000 4 pages.   |    |
| AD                    | -            | Venkatesan et al.,"Robust Image Hashing" Proceedings of the IEEE-ICIP Vancouver BC Canada 2000 3 pages.   |    |

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| Examiner<br>Signature | AAT           | ANDREW W. JOHNS  | Date       | DEC      | 1 5 2004 |
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<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

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|                               |                |      |                 | Application Number     | 09/843,287                                     |     |
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| STA                           | TEMENT         | RY   | APPLICANT       | First Named Inventor   | Mihcak   | ~ ~ |
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|                               | (use as many s | heel | s as necessary) | Examiner Name          | JOHNS, ANDREW WILLIAM                          |     |
| Sheet                         | 3              | of   | 3               | Attorney Docket Number | MS1-794US                                      |     |

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| ANT                   |              | Malvar,"A Modulated Complex Lapped Transform and its Applications to Audio Processing" IEEE ICASSP'99 Phoenix AZ. March 1999 pages 1-4.   |                |
| AU                    |              | Mihçak et al.,"A Perceptual Audio Hashing Algorithm: A Tool For Robust Audio Identification and Information Hiding" Proceedings of the Information Hiding Workshop 2001 15 pages.   |                |
| AAT                   |              | Moulin et al.,"A Framework for Evaluating the Data-Hiding Capacity of Image Sources" IEEE Transactions on Image Processing Vol. 11 No. 9 September 2002 pages 1-14.   |                |
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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of

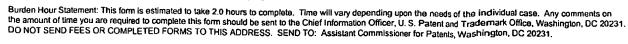
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| Application Number     | 09/843,287      |  |  |  |
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| First Named Inventor   | Mihcak          |  |  |  |
| Group Art Unit         | 2621            |  |  |  |
| Examiner Name          | JOHNS, ANDREW W |  |  |  |
| Attorney Docket Number | MS1-794US       |  |  |  |

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| AN                   |   | 4773039   |   | Zamora  | 09/20/1988   | 364/900  |  |  |
| ANT                  |   | 5774588   | A | Li  | 06/30/1998   | 382/230  |  |  |
| AN<br>AN<br>AG       |   | 6081893   | A | Grawrock et al.                                 | 06/27/2000   | 713/183  |  |  |
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<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 If possible. <sup>5</sup> Applicant is to place a check mark here if English language Translation is attached.



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